



## LABORATORY REPORT

Prepared For: Brown & Caldwell Project: Florence Copper 140753

201 E. Washington St., Ste. 500

Phoenix, AZ 85004

Attention: Barbara Sylvester Sampled: 09/27/11 Received: 09/27/11

Issued: 10/06/11 10:49

## NELAP #01109CA Arizona DHS#AZ0728

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

#### **CASE NARRATIVE**

LABORATORY ID	CLIENT ID	MATRIX
PUI1645-01	M26-0	Water
PUI1645-02	M17-GL	Water
PUI1645-03	M24-0	Water

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica

Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

N1-Sample filtration for dissolved analytes was performed by laboratory. The regulatory requirement is

filtration within fifteen minutes of sampling.

N1a-Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The

batch was accepted based on acceptable recovery in the Blank Spike (LCS).

COMMENTS: Results that fall between the MDL and RL are 'E4' flagged.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

Reviewed By:

TestAmerica Phoenix

Tina Paulauskas Project Manager



4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

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## **DISSOLVED METALS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PUI1645-01 (M26-0 - Water) Reporting Units: mg/l Magnesium	EPA 200.7	1111049	0.20	2.0	ND	1	09/29/11	09/29/11	<b>N1</b> E8
Sample ID: PUI1645-02 (M17-GL - Water) Reporting Units: mg/l Magnesium	EPA 200.7	1111049	0.20	2.0	4.9	1	09/29/11	09/29/11	N1
Sample ID: PUI1645-03 (M24-0 - Water) Reporting Units: mg/l	EPA 200.7	1111049	0.20	2.0	14	1	09/29/11	09/29/11	N1
Magnesium	EFA 200./	1111049	0.20	∠.0	14	1	09/49/11	09/29/11	



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## **INORGANICS**

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Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PUI1645-01 (M26-0 - Water) Reporting Units: mg/l									
	ED 4 200 0	1110072	37/4	0.40	4.4	1	00/07/11	00/20/11	
Fluoride	EPA 300.0	1110973	N/A	0.40	1.4	1	09/27/11	09/28/11	
Sulfate	EPA 300.0	1110973	N/A	2.00	56.4	1	09/27/11	09/28/11	
<b>Total Dissolved Solids</b>	SM 2540C	11J0003	N/A	20	290	1	10/01/11	10/01/11	
Sample ID: PUI1645-02 (M17-GL - Water	•)								
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0973	N/A	0.40	0.63	1	09/27/11	09/28/11	
Sulfate	EPA 300.0	11I0973	N/A	2.00	94.4	1	09/27/11	09/28/11	
<b>Total Dissolved Solids</b>	SM 2540C	11J0003	N/A	20	410	1	10/01/11	10/01/11	
Sample ID: PUI1645-03 (M24-0 - Water)									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0973	N/A	0.40	1.2	1	09/27/11	09/28/11	
Sulfate	EPA 300.0	11I0973	N/A	40.0	1100	20	09/27/11	09/28/11	
<b>Total Dissolved Solids</b>	SM 2540C	11J0003	N/A	20	1700	1	10/01/11	10/01/11	



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# METHOD BLANK/QC DATA

## **DISSOLVED METALS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
•	Result	Limit	MIDL	Units	Levei	Result	/0KEC	Lillits	KI D	Lillit	Quanners
<b>Batch: 11I1049 Extracted: 09/29/11</b>											
Blank Analyzed: 09/29/2011 (11I1049-BL	K1)										
Magnesium	ND	2.0	0.20	mg/l							
Blank Analyzed: 09/29/2011 (11I1049-BL	K2)										
Magnesium	ND	2.0	0.20	mg/l							
Blank Analyzed: 09/29/2011 (11I1049-BL	K3)										
Magnesium	ND	2.0	0.20	mg/l							
LCS Analyzed: 09/29/2011 (11I1049-BS1)											
Magnesium	21.7	2.0	0.20	mg/l	21.0		103	85-115			
LCS Dup Analyzed: 09/29/2011 (11I1049-	BSD1)										
Magnesium	21.4	2.0	0.20	mg/l	21.0		102	85-115	2	20	
Matrix Spike Analyzed: 09/29/2011 (11I10	)49-MS1)				Sour	ce: PUI1	339-04				
Magnesium	23.3	2.0	0.20	mg/l	21.0	1.46	104	70-130			
Matrix Spike Analyzed: 09/29/2011 (11I10	)49-MS2)				Sour	ce: PUI1	451-01				
Magnesium	43.1	2.0	0.20	mg/l	21.0	21.8	102	70-130			
Matrix Spike Dup Analyzed: 09/29/2011 (	11I1049-MSD1	l)			Sour	ce: PUI1	339-04				
Magnesium	22.9	2.0	0.20	mg/l	21.0	1.46	102	70-130	2	20	
Matrix Spike Dup Analyzed: 09/29/2011 (	11I1049-MSD2	2)			Sour	ce: PUI1	451-01				
Magnesium	43.1	2.0	0.20	mg/l	21.0	21.8	101	70-130	0.06	20	

## **TestAmerica Phoenix**

Tina Paulauskas Project Manager



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# METHOD BLANK/QC DATA

## **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch:</b> 1110973 Extracted: 09/27/11											
Blank Analyzed: 09/28/2011 (11I0973-BLI	K1)										
Fluoride	ND	0.40	N/A	mg/l							
Sulfate	ND	2.00	N/A	mg/l							
LCS Analyzed: 09/28/2011 (11I0973-BS1)											
Fluoride	4.14	0.40	N/A	mg/l	4.00		103	90-110			
Sulfate	20.8	2.00	N/A	mg/l	20.0		104	90-110			N1a
LCS Dup Analyzed: 09/28/2011 (11I0973-	BSD1)										
Fluoride	4.18	0.40	N/A	mg/l	4.00		104	90-110	1	20	
Sulfate	20.7	2.00	N/A	mg/l	20.0		103	90-110	0.4	15	N1a
Matrix Spike Analyzed: 09/28/2011 (11109	973-MS1)				Sour	ce: PUI1	635-03				
Fluoride	4.86	0.40	N/A	mg/l	4.00	0.701	104	80-120			
Matrix Spike Dup Analyzed: 09/28/2011 (	1110973-MSD	1)			Sour	ce: PUI1	635-03				
Fluoride	4.88	0.40	N/A	mg/l	4.00	0.701	104	80-120	0.4	20	
Batch: 11J0003 Extracted: 10/01/11											
Blank Analyzed: 10/01/2011 (11J0003-BL)	,	20	NT/A	Л							
Total Dissolved Solids	ND	20	N/A	mg/l							
LCS Analyzed: 10/01/2011 (11J0003-BS1)											
Total Dissolved Solids	1000	20	N/A	mg/l	1000		100	80-115			
LCS Dup Analyzed: 10/01/2011 (11J0003-	BSD1)										
Total Dissolved Solids	1000	20	N/A	mg/l	1000		100	80-115	0	10	

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# METHOD BLANK/QC DATA

## **INORGANICS**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
<b>Batch: 11J0003 Extracted: 10/01/11</b>											
Duplicate Analyzed: 10/01/2011 (11J0003-	DUP1)				Sour	ce: PUI1	610-01				
Total Dissolved Solids	1240	20	N/A	mg/l	2041	1230	010 01		1	10	
Duplicate Analyzed: 10/01/2011 (11J0003-	DUP2)				Sour	ce: PUI1	761-01				
Total Dissolved Solids	1240	20	N/A	mg/l		1240			0.2	10	



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# DATA QUALIFIERS AND DEFINITIONS

**E8** Analyte reported to the MDL per project specification. Target analyte was not detected in the sample.

**N1** See case narrative.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

**RPD** Relative Percent Difference



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# **Certification Summary**

#### **TestAmerica Phoenix**

Method	Matrix	Nelac	Arizona
EPA 200.7	Water		X
EPA 300.0	Water		X
SM 2540C	Water		X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
 Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
 Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

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Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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